

PROJECT DESCRIPTION

GENERAL

THIS PROJECT INVOLVES THE INSTALLATION OF AN EMERGENCY SIGNAL WITH OPTICOM DETECTION AT THE INTERSECTION OF MD 331 (MAIN STREET) AND MAPLE ROAD/MESSICK AVENUE IN THE TOWN OF PRESTON, CAROLINE COUNTY. MD 331 IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

INTERSECTION OPERATION

THE EMERGENCY SIGNAL WILL FLASH YELLOW IN NORMAL OPERATION. WHEN ACTUATED BY AN EMERGENCY VEHICLE, THE SIGNAL WILL CHANGE TO A QUICK FLASHING YELLOW AND THEN TO A STEADY RED.

CONTROLLER REQUIREMENTS

INSTALL A FULL-TRAFFIC-ACTUATED, EIGHT-PHASE CONTROLLER, INTERSECTION MONITOR WITH BATTERY BACK-UP FOR PHONE DROP AND ASSOCIATED HARNESSES HOUSED IN A NEMA SIZE "5" POLE MOUNTED CABINET.

SPECIAL NOTE

UPON COMPLETION OF THIS PROJECT, THE CONTRACTOR SHALL NOTIFY MR. ROBERT SYNDER OF SHA AT (410) 787-7635 TO ARRANGE FOR THE PHONE LINE INSTALLATION. THE CONTRACTOR IS TO PROVIDE MR. SYNDER WITH THE NEAREST STREET ADDRESS, ZIP CODE AND PHONE NUMBER.

MAINTENANCE OF TRAFFIC

THE FOLLOWING TRAFFIC CONTROL STANDARDS SHALL BE REFERENCED FOR THE PROJECT.

STANDARD NO. MD-104.00 - 104.00-30 STANDARD NO. MD-104.32-01 (INTERSECTION FLAGGING OPERATION)  
STANDARD NO. MD-104.31-01 (FLAGGING OPERATION)  
STANDARD NO. MD-104.33-01 (SHOULDER WORK)  
STANDARD NO. MD-104.35 (LANE SHIFT)

PROJECT CONTACTS

THE CONTACT PERSONS FOR SHA ARE AS FOLLOWS:

MR. RICHARD LINDSAY  
DISTRICT ENGINEER  
PHONE: (301) 778-3061

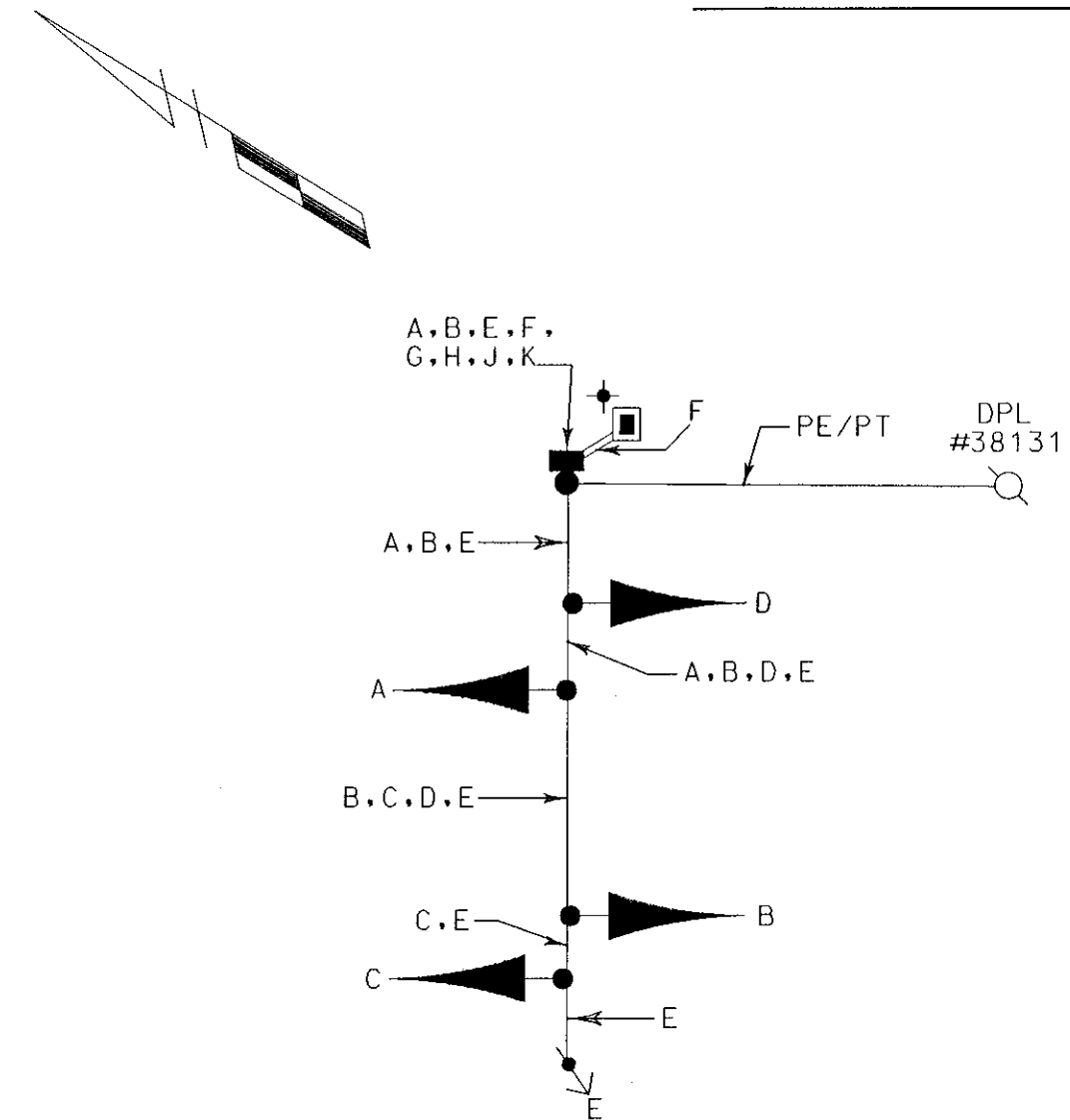
MR. ROBERT KEIL  
ASSISTANT DISTRICT ENGINEER - TRAFFIC  
PHONE: (301) 778-3061

MR. TERRY WRIGHT  
ASSISTANT DISTRICT ENGINEER - MAINTENANCE  
PHONE: (301) 778-3061

MR. BARRY CLOTHIER  
DISTRICT UTILITIES ENGINEER  
PHONE: (410) 778-301

MR. RICHARD L. DAFF, SR.  
CHIEF, TRAFFIC OPERATIONS DIVISION  
PHONE: (410) 787-7630

WIRING DIAGRAM



WIRING KEY

- A } 7-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- B } 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- C } 4-CONDUCTOR OPTICOM DETECTOR CABLE (NO. 14 A.W.G.)
- D } STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)
- E } 1-CONDUCTOR ELECTRICAL CABLE (NO. 8 AWG)
- F } 3-CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)

PE/PT - PROPOSED OVERHEAD ELECTRICAL AND TELEPHONE SERVICE

+ - 3/4 IN. X 10 FT. GROUND ROD

EQUIPMENT LIST "A"

A. EQUIPMENT TO BE SUPPLIED BY THE SHA

ITEM NO.	QUANTITY	DESCRIPTION
9080	1 EACH	EIGHT-PHASE, FULL-TRAFFIC-ACTUATED CONTROLLER AND INTERSECTION MONITOR II WITH BATTERY BACK-UP FOR PHONE DROP HOUSED IN A NEMA SIZE "5" POLE MOUNTED CABINET
9089	43 S.F.	SHEET ALUMINUM SIGNS TO CONSIST OF : - 2 EACH W11-8(1) FIRE SIGNAL SIGN (36 IN. X 72 IN.) SINGLE FACED - MAST ARM MOUNT - 1 EACH R1-1 STOP SIGN (30 IN. X 30 IN.) - GROUND MOUNTED
9000	1 EACH	21 FOOT STEEL POLE WITH 38 FOOT MAST ARM AND ANCHOR BOLTS

EQUIPMENT LIST "B"

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR

ITEM NO.	QUANTITY	DESCRIPTION
1001	1 EACH	MAINTENANCE OF TRAFFIC PER ASSIGNMENT
2001	1 C.Y.	TEST PIT EXCAVATION
8001	3 C.Y.	FURNISH AND INSTALL CONCRETE FOR SIGNAL FOUNDATION
8012	1 EACH	FURNISH AND INSTALL 3M OPTICOM #721 DETECTOR EYE
8013	1 EACH	FURNISH AND INSTALL 3M OPTICOM #760 CARD RACK
8014	1 EACH	FURNISH AND INSTALL 3M OPTICOM DISCRIMINATOR MODULE
8015	3 EACH	FURNISH AND INSTALL OPTICOM EMITTER SYSTEM 500 SERIES, VISIBLE LIGHT FILTER AND HARDWARE
8019	1 EACH.	INSTALL CONTROLLER AND CABINET - POLE MOUNT
8027	40 L.F.	FURNISH AND INSTALL 3 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
8033	1 EACH	FURNISH AND INSTALL ELECTRICAL HANDHOLE
8034	1 EACH.	FURNISH AND INSTALL GROUND ROD - 3/4 INCH X 10 FOOT LENGTH
8037	70 L.F.	FURNISH AND INSTALL 4 CONDUCTOR OPTICOM DETECTOR CABLE
8043	25 L.F.	FURNISH AND INSTALL ELECTRICAL CANLE - 3 CONDUCTORE (NO. 14 AWG)
8044	50 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)
8045	110 L.F	FURNISH AND INSTALL ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)
8047	45 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE - 1 CONDUCTOR (NO. 8 AWG) - THHN/THWN
8048	20 L.F.	FURNISH AND INSTALL NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
8050	20 L.F.	FURNISH AND INSTALL WOOD SIGN SUPPORTS 4 IN. X 4 IN.
8052	7 S.F.	INSTALL GROUND MOUNTED SIGN
8053	36 S.F.	INSTALL OVERHEAD SIGN
8065	20 L.F.	FURNISH AND INSTALL 1 INCH RIGID ELECTRICAL GALVANIZED RISER
8066	1 EACH	FURNISH AND INSTALL CONTROL AND DISTRIBUTION EQUIPMENT (120/240 V. 1 PHASE 3 WIRE SYSTEM)
8069	1 EACH	FURNISH AND INSTALL PHOTOCELL
8074	1 EACH	INSTALL STEEL POLE AND SINGLE MAST ARM (ANY SIZE)
8084	8 EACH	FURNISH AND INSTALL 12 IN. VEHICULAR TRAFFIC SIGNAL HEAD SECTION (BLACK FACED)
8085	4 EACH	FURNISH AND INSTALL 8 IN. VEHICULAR TRAFFIC SIGNAL HEAD SECTION (BLACK FACED)

PHASE CHART

	1	2	3	4	
	(R) (Y) (Y)	(R) (Y) (Y)	(R) (Y) (Y)	(R) (Y) (Y)	
NORMAL OPERATION	FL/Y 8"	FL/Y 8"	FL/Y 8"	FL/Y 8"	
PRE-EMPTION WARNING	OFL/Y 8"	OFL/Y 8"	OFL/Y 8"	OFL/Y 8"	
WARNING CHANGE	12" Y	12" Y	12" Y	12" Y	
PRE-EMPTION	R	R	R	R	
PRE-EMPTION CHANGE	R	R	R	R	
FLASHING OPERATION	FL/Y 12"	FL/Y 12"	FL/Y 12"	FL/Y 12"	



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and Associates, LLP  
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Baltimore, Maryland 21218  
(410) 235-3450



MARYLAND DOT - STATE HIGHWAY ADMINISTRATION  
Office of Traffic & Safety  
TRAFFIC ENGINEERING DESIGN DIVISION

GENERAL INFORMATION SHEET  
MD 331 AND MAPLE AVE./MESSICK AVE.  
(TOWN OF PRESTON)

DRAWN BY: S. CHERNACK	F.A.P. NO. NLEARY	S.H.A. NO. 0571451183	TS NO. TS-4003	SHEET NO.
CHECKED BY: NLEARY	SCALE: NONE	COUNTY: CAROLINE	T.I.M.S. NO. D-427	
DATE: 8/11/00	LOG MILE: 05033101.03			